



# FR-POE230 Series

## Gigabit POE Media Converter (External PSU)

Product Data Sheet



# FR-POE230 Series

Fiberroad POE230 Series commercial grade PoE fiber media provides an option for single or dual PoE ports with 100Mbps or Gigabit Ethernet, which communicates across optical fiber via SFP port or 1x9 optical transceiver.

The PoE feature complied with IEEE802.3 af/at standard, including a PSE controller, which offers PD signature sensing and PoE negotiation features. Other intelligent features include over-current protection, LFP function, etc.

## Main Features

- Ideal for confined spaces, and provides highly cost-effective solutions
- Auto-Negotiation – automatically determines the best connection speed
- Wall mountable using the integrated mounting holes
- Single or Dual IEEE 802.3at 30W PoE+ port
- Fast or Gigabit ethernet, SFP or 1X9 transceiver supports single-mode and multimode, single or dual fiber options up to 120km
- Supports Jumbo Frames up to 9.6K bytes
- Intelligent features(DIP Switch/Media Converter) supported including link fault pass-through, automatic laser shutdown, SFP reset and SFP speed selection



## Application

- Perfect for powering a Wireless Access Point (WAP) in a business environment
- Power a security camera/ network webcam situated in a remote area where power connection is not possible over an Ethernet connection
- Enable remote installation of touchscreens or information kiosks
- Connecting PoE device data and power to Gigabit fiber backbone

# Product Specifications

## Physical Port

Model	FR-POE231	FR-POE232	FR-POE233
Copper Port	1x 10/100Base-TX RJ45	1x 10/100/1000Base-TX RJ45	2x 10/100/1000Base-TX RJ45
SFP Slot	1x 100Base-X (SFP or 1x9 Transceiver SC,ST,FC connector)	1x 1000Base-X (SFP or 1x9 Transceiver SC,ST,FC connector)	1x 1000Base-X (SFP or 1x9 Transceiver SC,ST,FC connector)
LED Indicators		Power SFP/1x9 Link/Activity RJ45 Link/Activity RJ45 Speed RJ45 Duplex PoE	Power SFP/1x9 Link/Activity RJ45 Link/Activity RJ45 Speed RJ45 Duplex PoE1 PoE2

## Cables

UTP	UTP Cables: CAT5 or above UTP Cable Limitations: Max. length up to 330 ft. (100 m)
Fiber Optic	1000BASE-SX: 50/125, 62.5/125, or 100/140- $\mu$ m Multimode 550m 1000BASE-LX: 8.3/125, 8.7/125, 9/125, or 10/125- $\mu$ m Single-mode 10km

## Ethernet Standards

Standards	IEEE802.3i 10Base-T IEEE802.3u 100Base-TX & 100Base-FX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3x Flow Control IEEE802.3af 15W PoE IEEE802.3at 30W PoE+
Switching Capacity	200Mbps(FR-POE231) 2 Gbps(FR-POE232) 6Gbps(FR-POE233)
Jumbo Frames	9K
<b>Power</b>	
Power Input	1
Operating Voltage	48-56VDC
PoE Power Capacity	IEEE802.3 af : 15.4W (x2 FR-POE233) IEEE802.3 at : 30W (x2 FR-POE233)
Power Consumption	af mode: 20W (x2 FR-POE233) at mode: 35W (x2 FR-POE233)
Protection	Over Currency

# Product Specifications

## Mechanical

Housing	Metal
Dimensions	94mm×71mm×26mm(W x D x H) 3.70 x 2.80 x 1.02in
IP Rating	IP30
Weight	0.2kg/0.44lb(Bare Hardware)
Installation	Desktop or Wall Mount

## Packaging

Shipping Weight	0.68kg / 1.50lb
Dimensions	184x98x92mm (W x D x H) 7.24 x 3.86 x 3.62 in

## Environmental

Temperature	Operating: 0 to 50°C (32 to 122°F) Storage: -20 to +70°C (-4 to +158°F)
Humidity	5 to 95% noncondensing
Altitude	<3000m(<10000 ft.)
MTBF	100,819 Hours
MTBF Standard	Telcordia SR-332 GB 25°C
Heat Dissipation	113 BTU/h (With 30W PoE)
Cooling	Passive Cooling
Noise Level	0 dBA

## DIP Switch (FR-POE231 AND FR-POE232)

DIP Switch	Name	Status	Description
#1	LFP	OFF	LFP Disable
		ON	LFP Enable
#2	ALS	OFF	ALS Disable
		ON	ALS Enable
#3	FX Reset	OFF	FX Reset Disable
		ON	FX Reset Enable
#4	FX100M	OFF	FX 1000M
		ON	FX 100M

# Product Specifications

## DIP Switch (FR-POE233)

DIP Switch	Name	Status	Description
#1	AI POE(Optional)	OFF	AI POE Disable
		ON	AI POE Enable
#2	Jumbo Frame	OFF	ALS Disable
		ON	ALS Enable
#3	VLAN	OFF	VLAN Disable
		ON	VLAN Enable
#4	FX100M	OFF	FX 1000M
		ON	FX 100M

### Notes:

1. LFP: Link fault pass through, When enabled, the UTP receiver is passed to the fiber transmitter to make the media converter appear transparent to the connected end devices. It uses link fault pass-through to indicate when far-end fault issues occur. If a fault occurs, the end device indicates a failure for troubleshooting.
2. ALS, Automatic laser shutdown is a procedure to automatically shut down the laser when there is no input light and stop emitting optical signals.
3. Ai PoE: When enabled, the PoE will restart if there is no data input to the UTP receiver.
4. FX: Optical Fiber Port
- 5, FX Reset: When enabled, the PoE will restart if there is no data input to the UTP receiver.

## Package Contents

Device	PoE Fiber Media Converter
Power Supply	52VDC Power Supply(with region specific plug)
Documentation	User Manual

## Accessories(Sold Separately)

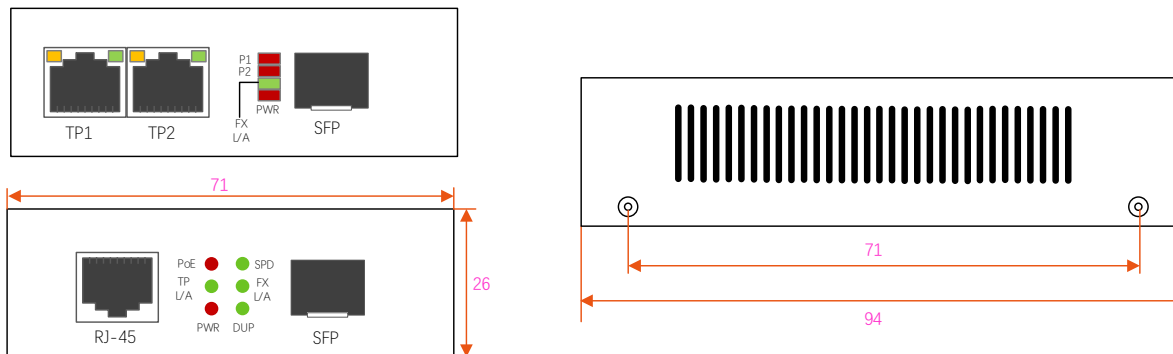
### SFP Optical Transceiver

FRSX-1L311C	1.25Gb/s 1310nm 10km SFP
FRSX-1L341C	1.25Gb/s 1310nm 40km SFP
FRSX-1L5X1C	1.25Gb/s 1550nm 80/100km SFP
FRSX-1L3523/5323C	1.25Gb/s 1310nm/1550nm 20km BiDi SFP

### Armored Fiber Patch Cable / LAN Cable

FRPC-A-LC	Armored LSZH LC UPC to LC UPC Duplex OS2 single mode 7.0mm for Outdoor Application , 1-50m
FRLC-A-CAT6	Armored Cat6 Snagless shielded(SFTP) Ethernet Network Patch Cable, 26AWG, 1000Base-T, 0.5m – 3m

## Dimensions Unit: mm



## Precautions

To avoid damage to the equipment and personal injury caused by improper use, please observe the following precautions:

- ❖ Keep the power off during installation, wear an anti-static wrist, and ensure that the anti-static wrist is in good contact with the skin to avoid potential safety hazards.
- ❖ The Switch/Media Converter can work normally under the correct power supply. Please confirm that the power supply voltage matches the voltage indicated by the Switch/Media Converter.
- ❖ Before powering on the Switch/Media Converter, please make sure that the power circuit is not overloaded, so as not to affect the normal operation of the Switch/Media Converter and even cause unnecessary damage.
- ❖ To avoid the risk of electric shock, do not open the case while the Switch/Media Converter is working, even if it is not charged, do not open it yourself.
- ❖ Before cleaning the Switch/Media Converter, pull out the power plug of the Switch/Media Converter. Do not wipe with a wet cloth. Do not use liquid to clean it.
- ❖ The equipment installed in the rack is generally from bottom to top to avoid overload installation.
- ❖ Avoid placing other heavy objects on the surface of the Switch/Media Converter to avoid accidents.

## Order Information

FR-POE231	Fast Ethernet PSE Media Converter SFP to RJ45, 30W(External power supply DC52V)
FR-POE232	Gigabit PSE Media Converter SFP to RJ45, 30W(External power supply DC52V)
FR-POE233	Gigabit PSE Media Converter SFP to 2xRJ45, 60W(External power supply DC52V)

The information in this document is subject to change without notice. Fiberroad Technology., Ltd has made all effects to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty. Visit our website for the most up-to-date product information

## For more information

For more information about Fiberroad Fiber Media Converter series products, Visit <https://www.fiberroad.com> or contact your local account representative.